

### **REMARKS/ARGUMENTS**

This amendment is submitted in response to the Office Action mailed November 29, 2006. Claims 1, 2 and 7 are amended to more clearly recite features of the claimed invention. Claims 1-7 and 12 remain pending. A total of 8 claims remain pending in the present application. The present amendments have been made to expedite the allowance of the application and for no other reason. In preparing the above-noted amendments, careful attention was paid to ensure that no new subject matter has been introduced. Reconsideration of this application is respectfully requested.

Applicant appreciates the Examiner's indication that claims 6 and 12 would be allowable if rewritten in independent form.

#### **Claim Rejections – 35 U.S.C. § 112**

Claims 1-7 and 12 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the Examiner has noted that the phrase “adapted to” renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. In order to address the rejection the term “adapted to” has been removed from claims 1, 2 and 7 to further clarify the present invention. It is submitted that the claims now comply with 35 U.S.C § 112.

#### **Claim Rejections – 35 U.S.C. § 102**

The Examiner has rejected claims 1-5 under 35 U.S.C. § 102(a) & 102(e) as being anticipated by Seto et al. (US006504636B1).

Independent claim 1 recites a transmitter for an optical network unit (ONU) for transmitting data over a return data channel of a passive optical network in accordance with a predefined time-sharing protocol, the transmitter comprising: a laser driver for driving a laser of the transmitter to generate an optical carrier; a modulation sub-system for modulating data onto the optical carrier generated by the laser; and a secondary modulation sub-system for impressing an ONU identifier onto the optical carrier, the ONU identifier serving to identify the ONU to a network monitor that monitors the return data channel.

In order to reject a claim under 35 U.S.C. § 102 “[a]nticipation requires the disclosure in a single prior art reference of each element of the claim under consideration” as stated by the Federal Circuit in *W.L. Gore & Associates v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed.

Cir. 1983). In addition “[a]nticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim” as stated by the Federal Circuit in *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984). It is submitted that in asserting the anticipation rejection under 35 U.S.C. § 102 the Examiner has not shown that Seto et al. disclose an ONU identifier or even a secondary modulation sub-system for impressing an ONU identifier onto the optical carrier as in the present invention. In addition, the fact that the ONU identifier serves to identify the ONU to a network monitor that monitors the return data channel is not contemplated or disclosed in any manner.

Similarly claims 2-4, as they depend on claim 1, present subject matter not taught or suggested by Seto et al. particularly since there is no suggestion or contemplation of an ONU identifier let alone impressing the identifier onto the optical carrier.

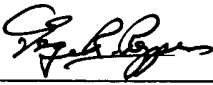
In the rejection to claim 5 the Examiner appears to be asserting that Seto et al. teach an ONU identifier source (14-1, 14-2, fig. 15). It is submitted that the reference is not an ONU identifier source at all but a pilot carrier signals  $f_{LO}$  for frequency up-conversion and cannot be confused with an ONU identifier in any manner. The reference number cited, 14-1 and 14-2 in fig. 15 define the number of corresponding intermediate frequency sub carrier signals multiplexed to be sent over the optical transmission [col. 3 line 64 to col. 4 line 5]. It is also apparent throughout the description of Seto et al. that the  $f_{LO}$  is the pilot carrier signal only and is not used for any means of identification related to the ONU itself. *“In addition to the intermediate frequency subcarrier signals  $f_{IF1}, f_{IF2}, \dots, f_{IFp}$ , the pilot carrier signals  $f_{LO1}$  and  $f_{LO2}$  are transmitted. In this system, the number of pilot carrier signals  $f_{LO1}$  and  $f_{LO2}$  is always two independently of the number of intermediate frequency subcarrier signals. The frequency of the two pilot carrier signals  $f_{LO1}$  and  $f_{LO2}$  are set such that a frequency to be sent from the antenna is obtained when integral multiple of frequency  $f_{LO1}$  and  $f_{LO2}$  of the pilot carrier signals are appropriately added/subtracted to/from the frequencies of the intermediate frequency sub carrier signals...”* [col. 22 lines 13 to 23]. There is no suggestion of an ONU identifier or imposing that identifier on the optical carrier as in the present invention.

It is therefore submitted that the problem solved by Applicant's invention is not contemplated by Seto et al. in any manner or even suggested let alone anticipated. Seto et al. provide a means for transmitting radio frequency signal such as a radio signal via an optical fiber in analog form for use in radio base stations [col. 4 lines 56 to 65]. In contrast the present

invention provides a means for detecting transmission faults in an optical access network. The similarity between the disclosures ends in the fact that they are in the optical space. It is submitted that a person of ordinary skill in the art would not find Seto et al. in any way anticipates the present invention as presented in pending claims 1-7 and 12 and therefore the Examiner's assertion that Seto et al. anticipate Applicant's invention is improper and should be withdrawn. Thus it is believed that the patent application is in a condition for allowance and early action in that respect is courteously solicited.

In view of the above amendments and remarks, withdrawal of the rejections and reconsideration are respectfully requested.

Respectfully submitted,

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